

ACC NR: AP6004454

SOURCE CODE: UR/0048/66/030/001/0002/0005

AUTHOR: Salanskiy, N.M.; Frolov, G.I.ORG: Physics Institute of the Siberian Section of the DDDT Academy of Sciences  
(Institut fiziki Sibirskogo otdeleniya Akademii nauk SSSR)TITLE: Concerning nucleation incident to pulsed switching of thin films /Transactions  
of the Second All-Union Symposium on the Physics of Thin Ferromagnetic Films, held at  
Irkutsk 10 July to 15 July, 1964/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 1, 1966, 2-5

TOPIC TAGS: ferromagnetic film, magnetic thin film, magnetic domain structure,  
magnetization, pulsed magnetic field,ABSTRACT: The authors have investigated nucleation and domain structure changes inci-  
dent to pulsed magnetization switching of two ferromagnetic films of undisclosed  
composition. The films were deposited at  $10^{-5}$  mm Hg onto an undisclosed substrate. One  
film was 1200 Å thick and had a coercive force of 1.30 Oe, an anisotropy field of 2.8  
Oe, and an angular dispersion of anisotropy of 0.4-0.5 Oe; the corresponding quantities  
for the other film were 1550 Å, 137 Oe, 3.1 Oe, and 0.15-0.2 Oe. The domain structure  
was observed by means of the Kerr effect after the film had been magnetized in a  
longitudinal field of intensity from 2 to 4 Oe and duration from 50 to 500 nanosec.  
When the field strength was 3 Oe a rapid increase of the number of nuclei with in-  
creasing duration of the pulse was observed. When the pulse was longer than 100 nanosec.

Card 1/2

L 15378-66

ACC NR: AP6004454

the nuclei were seen to grow and merge while new nuclei continued to form. The magnetization process was not completed even when the pulse duration was 500 nanosec. When the magnetizing field strength was 4 Oe the switching process was completed when the pulse duration was 300 nanosec. The time required to form nuclei decreased very rapidly with increase of the field strength. The nucleation time was two or three orders of magnitude longer than the coherent rotation time from which it is concluded that the number of nuclei will increase with increasing magnetizing field strength until coalescence of the reverse domains owing to increase in their number and size, begins to predominate over nucleation. Experiments with a 3 Oe switching pulse in the presence of a 0.1 transverse field showed that the transverse field favored the switching process. This can be explained with the aid of the nonuniform rotation model, and it may also be connected with the appearance of a large number of nuclei under conditions favorable to their growth. Orig. art. has: 4 formulas, 3 figures and 1 table.

ORIG. REF: 002 OTH REF: 001

SUB CODE: 20

SUBM DATE: 00

TS  
Card 2/2

L 15380-66 EWT(1)/EWP(a)/EWT(m)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) IJP(c) JD/GG

ACC NR: AP6004457

SOURCE CODE: UR/0048/66/030/001/0017/0018

AUTHOR: Salanskiy, N.M.; Rodichev, A.M.

57  
B

ORG: Institute of Physics of the Siberian Section of the Academy of Sciences, SSSR  
(Institut fiziki Sibirskogo otdeleniya Akademii nauk SSSR)

TITLE: Measurement of the loss angle incident to magnetization of a thin ferromagnetic film in a rotating field /Transactions of the Second All-Union Symposium on the Physics of Thin Ferromagnetic Films held at Irkutsk 10 July to 15 July, 1964/

SOURCE: AN SSSR, Izvestiya. Seriya fizicheskaya, v. 30, no. 1, 1966, 17-18

TOPIC TAGS: ferromagnetic film, magnetic thin film, permalloy, high frequency, rotating magnetic field, loss angle,

ABSTRACT: The authors have measured the angle  $\theta$  by which the magnetization of a 1000 Å 80-20 Permalloy film of low anisotropy lagged behind the 5.5 MHz rotating magnetizing field. The measurements were made with the apparatus described in another report to the present Symposium by A.I. Pol'skiy and N.M. Salanskiy (Izv. AN SSSR Ser. fiz., 30, 19 (1966) (see Abstract AP60044587). After balancing the system in the absence of the film as described in the cited reference, the film was introduced and the compensating coil was rotated until the signal was minimum. From the angle through which the compensating coil was rotated and the relative strengths of the signals received with the compensating coil in different positions, the lag angle  $\theta$

Card 1/2

L 15380-66

ACC NR: AP6004457

was calculated. Measurements were made in fields ranging from 2 to 6 Oe; these fields were sufficiently strong so that the entire film participated in magnetization rotation. An average value of approximately 1.5 was found for the quantity  $a + bf^2$  in the expression  $\Theta = \sin^{-1} (f(a + bf^2)/\gamma H)$ , where  $f$  is the angular velocity of the rotating field of strength  $H$ ,  $\gamma$  is the gyromagnetic ratio, and  $a$  and  $b$  are constants. This value is considerably greater than was found at superhigh frequencies by the ferromagnetic resonance method (no reference cited). This discrepancy may be due in part to proximity to the vibrational resonance discussed by A.M.Rodichev and R.G.Khlebopros (Izv. AN SSSR Ser. fiz., 30, 54 (1966)) and in part to hysteresis losses in the substructure. Orig. art. has: 2 formulas and 2 figures.

SUB CODE: 20 SUBM DATE: 00 ORIG. REF: 003 OTH REF: 002

TS  
Card 2/2

I. 17406-66 EWT(1)/EWT(m)/EWP(e)/EWA(d)/T/EWP(t) IJP(c) J.D/GG

ACC NR: AP6004458

SOURCE CODE: UR/0048/66/030/001/0019/0021

AUTHOR: Pol'skiy, A.I.; Salanskiy, N.M.

ORG: none

TITLE: Some features of the behavior of thin ferromagnetic films in high frequency rotating fields (Transactions of the Second All-Union Symposium on the Physics of Thin Ferromagnetic Films held at Irkutsk 10 July to 15 July 1964) <sup>21, 44, 5</sup> <sup>79</sup> <sup>B</sup>

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 1, 1966, 19-21

TOPIC TAGS: ferromagnetic film, permalloy, molybdenum, rotating magnetic field, magnetic anisotropy, high frequency, <sup>55, 1, 15</sup> <sup>18, 16, 44, 5</sup>

ABSTRACT: The behavior of 750 A 16Fe-80Ni-4Mo and 1000 A 80-20 Permalloy films in 5.5 MHz rotating fields has been investigated. The films were prepared by vacuum evaporation. The rotating magnetic fields were produced by two identical coils with mutually perpendicular axes, carrying equal currents with a phase difference of 90°. A pickup coil was mounted at the common center of the two magnetizing windings, and a compensating coil was mounted above it and outside the magnetizing windings. The first (fundamental) and second harmonic signals from these two coils were amplified and so combined as to give zero output in the absence of the investigated film. The first and second harmonic signals in the presence of the films were plotted (in arbitrary units) against the strength of the magnetizing field (up to 8 Oe). Measurements were made on both films with the easy magnetization axis parallel to the axis

Card 1/2

L 17406-66

ACC NR: AP6004458

of the pickup coil, and with the easy axis perpendicular to pickup coil axis. In all four cases the first harmonic signal increased rapidly with increasing magnetizing force from about 1 Oe upwards, and in three cases it rapidly reached saturation. The first harmonic signal from the Fe-Ni-Mo film (perpendicular case) rose slowly after the initial rapid rise. At magnetizing fields above 2 Oe the second harmonic signal was small and decreased with increasing magnetizing field. Below 2 Oe the behavior of the second harmonic signal was complex, and the signal reached its maximum in this region. For both films the maximum second harmonic signal was greater when the easy magnetization axis was perpendicular to the pickup coil axis than when it was parallel to the pickup coil axis. The results are discussed very briefly, and a simple explanation is proposed for the fact that the second harmonic signal was stronger when the easy magnetization axis and the pickup coil axis were perpendicular than when they were parallel. From the behavior of the first harmonic signal one should be able to derive the magnitude of the average anisotropy field and some information concerning the dispersion curve. A thorough analysis of the curves for the second harmonic will be given after more measurements have been made. Orig. art. has: [15] 4 figures.

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 001/ OTH REF: 002/ ATD PRESS: 4206

Card TS  
2/2

RUSSIYAN, A.V.; SALAUTIN, V.A.; PAVEROVA, I.A.; GACHEV, S.M.

Resistance of EI847 steel to hot cracking during welding  
depending on the technology of smelting. Avtom. svar. 18  
no.10:7-11 O '65. (MIRA 18:12)

1. Tsentral'nyy issledovatel'skiy institut chernoy metallurgii.

I 33176-65 EWT(1)/EWT(m)/T/EWP(b)/EWP(t) Pad LIP(c) JD/HW  
ACCESSION NR: AP5005240 S/0057/65/035/002/0345/0347

AUTHOR: Salanskiy, N.M.; Drokin, A.I.; Smolin, R.P.; Gendelev, S.Sh.

TITLE: Barkhausen effect in a single-crystal nickel-cobalt ferrite

SOURCE: Zhurnal tekhnicheskoy fiziki, v.35, no.2, 1965, 345-347

TOPIC TAGS: Barkhausen effect, single crystal, ferrite, nickel, cobalt, temperature dependence

ABSTRACT: The Barkhausen effect was investigated in a single-crystal cobalt-doped nickel ferrite containing 2% CoO. The crystal was grown in an oxyhydrogen flame by the Verneuil method, and from it a 11 x 0.6 x 1.5 mm bar was cut with the large surface in the (100) plane and the long axis in the [001] direction. The resistivity of this crystal was only 0.05 ohm cm; it is suggested that this low resistivity may be due to an appreciable concentration of Fe<sup>2+</sup>. The number of Barkhausen jumps of duration greater than 100 nanosec was counted as the magnetizing field was swept from -66 to +66 Oe during the course of 1000 sec at temperatures from 300 to 77°K. The integral number of jumps increased almost linearly with the magnetizing field, and at room temperature the total number of jumps counted during

Card 1/2

L 33176-65

ACCESSION NR: AP5005240

the magnetization reversal was about  $3 \times 10^5$ . The number of Barkhausen jumps per magnetization reversal remained constant with decreasing temperature until a temperature of  $180^{\circ}\text{K}$  was reached; thereafter the number of jumps decreased rapidly and no jumps were detected at temperatures below  $120^{\circ}\text{K}$ , even when the magnetizing field was increased to 280 Oe. Hysteresis curves taken at 50 cps showed increasing loss with decreasing temperature in spite of the disappearance of the Barkhausen jumps. It is suggested that Barkhausen jumps may actually have occurred at the low temperatures but with amplitudes and durations such that they could not be recorded with the apparatus employed, and that this effect may be useful in the construction of low-noise amplifiers. A polycrystalline ferrite of the same composition (but with a resistivity of  $10^{10}$  ohm cm) showed an increasing number of Barkhausen jumps with decreasing temperature. Orig.art.has: 3 figures.

ASSOCIATION: Institut fiziki SO AN SSSR, Krasnoyarsk (Institute of Physics, SO AN SSSR)

SUBMITTED: 06Apr64

ENCL: 00

SUB CODE: SS, EC

NR REF Sov: 003

OTHER: 003

Card 2/2

REF ID: A67 EXP(m)/EXP(t)/ET1 IJP(c) JD  
ACC NR: A83020135

SOURCE CODE: UR/0048/66/030/006/1065/1067

AUTHOR: Shirkov, N.M.; Chistyakov, N.S.; Frolov, G.I.

ORG: Institute of Physics, Siberian Section, Academy of Sciences, SSSR (Institut fiziki Sibirskogo otdeleniya Akademii nauk SSSR)

TITLE: Concerning investigation of the nature of the weakfield pulse switching process in thin ferromagnetic films / Report, All-Union Conference on the Physics of Ferro- and Antiferromagnetism held 2-7 July 1965 in Sverdlovsk/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 6, 1966, 1065-1067

TOPIC TAGS: ferromagnetic film, magnetization, magnetic susceptibility, microwave, Permalloy

ABSTRACT: It is suggested that the changes in the uhf susceptibility of thin ferromagnetic films during pulsed switching be employed, in addition to the signals picked up by the usual longitudinal and transverse windings, in investigations of the switching mechanism. It is shown with the aid of the expressions of N.S.Chistyakov and V.A. Ignatenko (Izv. AN SSSR, Ser. fiz., 30, No. 1, 59 (1966)) for the uhf susceptibility at frequencies far from the ferromagnetic resonance, that the uhf susceptibility does not change during switching by domain wall displacement but does change during switching by magnetization rotation, even when the rotation is symmetrically bilateral (half the magnetization rotating clockwise and half, counterclockwise). The use of both

Card 1/2

L 08768-67

ACC NR: A/PC029135

pick-up coils and the uhf susceptibility, therefore, makes it possible to distinguish between the magnetization change due to domain wall displacement and that due to rotation. Curves of the uhf susceptibility of a 1500 Å Permalloy film recorded during switching with a 10 Oe pulse are presented as an illustration of the feasibility of the proposed technique. To record these curves the film was mounted near the end wall of a resonant cavity which was in a side arm of a T bridge and was excited at 9 kHz in the H<sub>102</sub> mode. Orig. art. has: 1 formula and 3 figures.

SUB CODE: 20 SUBM DATE: 00 ORIG. REF: 002 OTH REF: 002

Card 2/2 bc

L 25512-66 EWT(1)/EWT(m)/EWP(w)/EWA(d)/T/EWP(t) IJP(c) JD  
ACC NR: AP6011400 SOURCE CODE: UR/0057/66/036/003/0521/0525

AUTHOR: Drokin, A.I.; Salanskiy, N.M.; Popova, A.A.; Smolin, R.P.

50  
B

ORG: Institute of Physics of the SO ANSSR, Krasnoyarsk (Institut fiziki SO ANSSR)

TITLE: Barkhausen effect in magnesium-manganese ferrite single crystals

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 3, 1966, 521-525

TOPIC TAGS: magnetic hysteresis, Barkhausen jump, single crystal, ferrite, magnesium, manganese, solid solution, temperature dependence

ABSTRACT: Magnetic hysteresis and the Barkhausen effect have been investigated at temperatures from 30 to -196°C. in magnesium-manganese ferrite single crystals of six different compositions. The crystals were grown in an oxyhydrogen flame by the Verneuil technique, using an apparatus similar to that described by K.S. Popov (Izv. AN SSR, Ser. fiz. 10, 505, 1946). The compositions of the materials (expressed in mole percent of MgO, MnO, and Fe<sub>2</sub>O<sub>3</sub>) ranged between 7.5 and 25% MgO, 25 and 55.5% MnO, and 33.5 and 50% Fe<sub>2</sub>O<sub>3</sub>. Two of the samples contained 50 mole percent Fe<sub>2</sub>O<sub>3</sub>. All the crystals contained small quantities of hausmannite. Most of the measurements were made on 0.2 x 1.5 x 10 mm<sup>3</sup> rectangular rods cut with the long axis in a [100] direction and the large face parallel to the (100) planes. The Barkhausen jumps were recorded during slow reversal of fields ranging in strength from 40 to 80 Oe. The hysteresis loops were highly rectangular at all temperatures, the squareness ratio in

Card 1/2

UDC: 538.12

L 25512-66  
ACC NR: AP6011400

one case being 98.1%. For all the crystals the field distribution of Barkhausen jumps (number of jumps per unit change in the magnetizing field as a function of the magnetizing field) exhibited two sharp maxima at fields corresponding to the bends of the hysteresis loop. It is suggested that these maxima may be associated with nucleation and the disappearance of domain structure. The amplitude distribution of the Barkhausen jumps was approximately exponential in all the materials. The temperature dependence of the Barkhausen jump amplitude distribution for the two materials containing 50% Fe<sub>2</sub>O<sub>3</sub> was anomalous. In the other four materials the numbers of Barkhausen jumps of all sizes increased with decreasing temperature, the number of jumps remaining approximately constant between about -160 and -80° C and varying greatly with the temperature at both lower and higher temperatures. It is suggested that the existence of a temperature interval in which the number of Barkhausen jumps is temperature independent may be of use in the design of low noise devices. In the two materials containing 50% Fe<sub>2</sub>O<sub>3</sub> the number of Barkhausen jumps of all sizes decreased rapidly with decreasing temperature, and at the lowest temperatures the Barkhausen effect could not be observed at all, although hysteresis loops were present. No explanation is offered for this anomalous behavior. Orig. art. has: 5 figures and 1 table.

SUB CODE: 20 SUBM DATE: 14Apr65 ORIG. REF: 008

Card 2/2

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001446820009-7

ACC NR: AP6033897

SOURCE CODE: GE/0030/66/017/002/0489/0499

AUTHOR: Kirenskii, L. V.; Salanski, N. M.; Chistyakov, N. S.; Isotova, T. P.

ORG: none

TITLE: Magnetic multilayers

SOURCE: Physica status solidi, v. 17, no. 2, 1966, 489-499

TOPIC TAGS: solid state physics, magnetic coercive force, magnetic film, electrodynamics, thin magnetic film, multilayer film, transmission coefficient, reflection coefficient, ultra high frequency

ABSTRACT: A study is made of 1) the nature of the interaction between two magnetic films FeNi and FeNiCo separated by a layer  $\text{SiO}_2$ ; and 2) the characteristics of the passage of an electromagnetic UHF-field through thin magnetic multilayered films divided by a layer of  $\text{SiO}_2$ . The study showed a decrease in the coercive force of the films in the multilayer system. This is explained by local magnetic interaction between the magnetic layers. The decrease in coerciveness depends on the thickness of the film and is explained by a change in the character

Card 1/2

ACC NR: AP6033897

of local interaction. Measurements were made of the coefficients of transmission and reflection as a function of the thickness of single-layered films and the total thickness of ferromagnetic metal layers in a multilayer system. It was found that the coefficients of transmission of multilayered systems is substantially greater than that of single-layered film. The characteristics of the transmission of UHF-energy through multilayered films are explained with in the framework of ordinary electrodynamics. [Translation of abstract] [SP]

SUB CODE: 20 / SUBM DATE: 31May66 / ORIG REF: 005 / OTH REF: 015 /

Card 2/2

ACC NR: AP7000655

(A)

SOURCE CODE: UR/0126/66/022/005/0698/0701

AUTHORS: Salanskiy, N. M.; Logutko, A. L.; Frolov, G. I.; Abakumov, B. M.

ORG: Institute of Physics, SO AN SSSR (Institut fiziki SO AN SSSR)

TITLE: Static and impulse magnetization and reversal of magnetization of thin films

SOURCE: Fizika metallov i metallovedeniye, v. 22, no. 5, 1966, 698-701

TOPIC TAGS: magnetic hysteresis, hysteresis loop, ferromagnetic film, magnetic domain structure

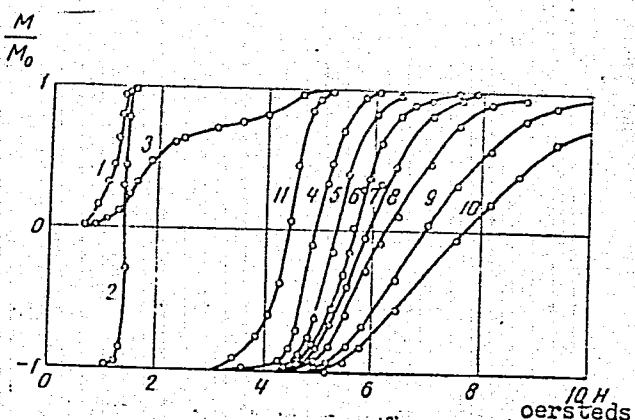
ABSTRACT: The "virgin" magnetization curve and hysteresis loops of thin films containing 82% Ni and 18% Fe were determined in static and pulsating magnetic fields. The effect of partial reversal of the magnetic field on the domain structure of the specimens was studied. The experimental procedure is described by T. S. Hoffman, I. A. Turner, and T. I. Kilburn (J. of British Institute of Radio Engineers, 1960, 20, 1, 31). The experimental results are presented graphically (see Fig. 1). Photographs of the domain structure of specimens exposed to different magnetization conditions are presented. The time dependence of domain nucleation on the magnitude of the variable magnetic field was also studied. The results are shown graphically. It was found that the change in the domain structure of specimen, as a result of the application of a variable magnetic field, was analogous to that found under similar conditions by N. M. Salanskiy and G. I. Frolov (FMM, 1966, 21, 157).

Card 1/2

UDC: 539.216.2:538.24

ACC NR: AP7000655

Fig. 1. Static (1) and impulse (3)  
"virgin" magnetization curves,  
static (2) and impulse (4--10)  
magnetic reversal curves and disper-  
sion curve  $H_k$  in terms of magnitude  
(11) for thin ferromagnetic film  
( $H_k = 4.4$  oersteds,  $H_c = 1.3$  oersteds,  
angular dispersion  $\alpha_{90} = 0.06$  oersted,  
 $d = 1100 \text{ \AA}$ ). Duration of impulses  $t_{\text{imp}}$ :  
4 - 500, 5 - 300, 6 - 200, 7 - 150,  
8 - 100, 9 - 70, 10 - 50 nanoseconds



Orig. art. has: 5 graphs.

SUB CODE: 20, 11/ SUBM DATE: 28Jun65/ ORIG REF: 002/ OTH REF: 001

Card 2/2

SALANSKY, Igor, MUDr.

Importance of cutivisceral reflexes in reflex therapy. Vnitr.  
lek., Brno 1 no.1:2-12 Jan 55.

1. Z ustatu vsobecne a experimentalni pathologie LFMU v Brne,  
prednosta prof. MUDr. a RNDr. V. Uher, Brno, Vystavní 24.

(REFLEX, CONDITIONED, ther. use  
importance of cutaneous & visceral reflexes.)

(SKIN, physiology  
reflexes, importance in reflex ther.)

(GASTROINTESTINAL SYSTEM, physiology  
reflexes, importance in reflex ther.)

SAJANSKY, Igor; KREJCI, Vladimir; STASTNA, Jitka.

Vegetative reflex changes in injuries of the soft tissues of the joint. Acta chir. orthop. czech. 26 no.4:261-265 Aug 59.

1. Ustav pro všeobecnou a experimentální patologii lekarské fakulty MU v Brně, přednosta prof. MUDr. A RNDr. Vilem Uher. Výzkumný ustav traumatologický v Brně, reditel prof. MUDr. Vladimír Novák.  
(JOINTS, wds & inj.) (AUTONOMIC NERVOUS SYSTEM, physiol.)

KREJCI, V.; SAIANSKY, I.; HROMEK, Fr..

Vasomotor reactions of the skin in injuries of the soft tissues  
of the joint. Attempted evaluation of the functional state. Acta  
chir. orthop. traum. czech. 26 no.4:266-275 Aug 59.

l. Vyzkumný ustav traumatologicky v Brne, reditel prof. dr. Vladimír  
Novák Ustav pro všeobecnou a experimentální patologii lékařské fakulty  
MU v Brně, prednosta prof. dr. Vilem Uher.  
(JOINTS, wds & inj.) (VASOMOTOR SYSTEM, physiol.)

MUSIL, F.; KREJCI, V.; SALANSKY, I.; SPONAR, J.

General and local vegetative changes in wound healing. Rozhl.chir.  
39 no.6:374-379 Je '60.

1. Vyzkumný ustav traumatologicky v Brne, reditel prof. MUDr.  
V.Novak, Ustav experimentalní patologie Brno, prednosta prof.  
MUDr et RNDr. V. Uher  
(WOUND HEALING)  
(AUTONOMIC NERVOUS SYSTEM physiol)

KREJCI, Vladimir; SALANSKY, Igor; PISTELKA, Milan

Electrodiagnosis of closed muscle injuries. Cas.lek.cesk 100 no.50:  
1578-1582 15 D '61.

1. Vyzkumny ustav traumatologicky v Brne, reditel prof. Dr. Sc. MUDr.  
Vladimir Novak, Ustav pro vseobecnu a experimentalni patologii  
lekarske fakulty v Brne, prednosta prof. Dr. Sc. MUDr. RNDr. Vilem  
Uher. Laborator prumyslove elektroniky CSAV v Brne, vedouci prof. Dr.  
Sc. Julius Strnad, clen korespondent CSAV.

(MUSCLES wds & inj) (ELECTRODIAGNOSIS)

KROUPA, J.; SALANSKY, I.; UHER, J.; Technicka spoluprace F. Utrata

Heparin in the prevention of fat embolism. (Experimental work  
with lipiodol). Rozh. chir. 43 no.4:204-210 Ap '64.

1. Vyzkumny ustav traumatologicky v Vrne (reditel prof. dr.  
Vl. Novak, DrSc.).

CZECHOSLOVAKIA

SOUCEK, J.; SALANSKY, I.; Research Institute for Macromolecular Chemistry, Research Institute of Traumatology (Vyzkumny Ustav Makromolekularni Chemie, Vyzkumny Ustav Traumatologicky), Brno.

"An Electrolytic Method for the Determination of Water Vapor Emitted by the Skin."

Prague, Ceskoslovenska Fysiologie, Vol 15, No 4, Jul 66, pp 329-330

Abstract: Water contained in the analyzed gas is absorbed by a film of  $P_2O_5$ , and immediately decomposed electrolytically to hydrogen and oxygen; the intensity of the electrical current used gives an instantaneous reading of the amount of the water, when a constant volume of the analyzed gas is maintained. The instrument is sensitive enough to allow investigations of small areas of the skin ( $1.10^{-6}$  to  $1.10^{-5}$  g of water/sec can be determined). Overall diagram of the unit is given, and technical details of the component parts presented. 1 Figure, 6 Western, 4 Czech references. (Manuscript received 3 Feb 66).

1/1

SALANSKY, Karel

SURNAME (in caps); Given Name(s)

Country: Czechoslovakia

Academic Degrees: /not given/

Affiliation: Institute of Applied Geophysics (Ustav uzite geofysiky),  
Prague.

Source: Prague, Vestnik Ustredniho Ustavu Geologickeho, Vol XXXVI,  
No 2, 1961, pp 311-315.

Data: "Preliminary Report on the Complex Geophysical Geological  
Investigation in the Cambrian of the Rozmital Area."

Co-authors: VONDROVA; Nadezda, /as above/

176

SALANSKY, Karel

Magnetic properties and volume weight of some rocks from the  
Jesenik Mountains area. Prid cas slezsky 23 no.3:311-324 '62.

KRUTSKY, Norbert; SALANSKY, Karel

New occurrence of pyritic ore forming near Prichovice  
in the Jizerske hory Mountains. Cas min geol 8 no.2:  
158-166 Ap '63.

1. Geologicky pruzkum Praha, zavod Dubi; Ustav uzite  
geofyziky, Brno, pracoviste Praha.

SALANSKY, Karel, promovany geolog

Effect of aircraft speed change on the accuracy of entering aerogeophysical measurements on a map. Geolog pruzkum 5 no.2:55-56 F '63.

1. Ustav uzite geofyziky, Brno, pracoviste Praha.

"APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001446820009-7

AKV, Karel, probably pseudonym, probably referring to Czechoslovak hydrogeologist, and

Method of graphical interpretation of the results of a detailed  
geophysical vertical measurement. Geofizika 1974, No. 1, p. 165.

I. Institute of Applied Geophysics, Brno, Worksite Prague.

APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001446820009-7"

SOURCE CODE: UR/0126/bb/vc'

ACC NR: AP6007358

AUTHORS: Kirenskiy, L. V.; Izotova, T. P.; Salanskiy, N. M.

ORG: Institute of Physics, SO AN SSSR (Institut fiziki SO AN SSSR); Pedagogic Institute (Krasnoyarskiy pedinstitut) 'Krasnoyarsk'

TITLE: Multilayer thin film systems

SOURCE: Fizika metallov i metallovedeniye, v. 21, no. 2, 1966, 293-295

TOPIC TAGS: iron, nickel, cobalt, ferromagnetic film, ferromagnetic material, QUARTZ

ABSTRACT: The interaction between two-layer ferromagnetic films separated from each other by a 2000 Å thick layer of quartz was studied. The study supplements the results of L. V. Kirenskiy, T. P. Izotova, and N. M. Salanskiy (Izv. AN SSSR, ser. fiz., 1965, No. 4, 610). The coercive force in the films and the Barkhausen jumps as a function of the field strength were determined. The experimental results are presented graphically (see Fig. 1). It is concluded that the bond field strength of the bond  $[\text{SiO}_2/\text{Fe-Ni}]$  depends mainly on the properties of the high-coercivity layer.

UDC: 539.216.2:538.22

Orig

SUB 1

Card 2

KSENDZOVSKIY, M.I.; SALANT, M.Ye.

Case of anaphylactic shock with fatal outcome following a single dose of penicillin. Antibiotiki 5 no.3:105-106 My-Je '60.  
(MIRA 14:6)

1. Khirurgicheskaya otdeleliys (zav. - prof. B.Ye.Frankenberg)  
Odesskoy gorodskoy klinicheskoy bol'nitsy.  
(PENICILLIN) (SHOCK)

SALATINYAN, I.Z.; TREBIN, G.F.; FOKEYEV, V.M.

Effect of the rate of petroleum flow on the deposition of paraffin  
on pipe walls. Izv. vys. ucheb. zav.; neft' i gaz 3 no.10:49-53  
'60. (MIRA 14:4)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti  
imeni akademika I.M.Gubkina.

(Paraffins)

SALAPA, P.

"Management of materials in industrial building." p. 170. (MATERIALY BUDOWLANE,  
Vol. 8, no. 7, July 1953, Warszawa, Poland)

SO: Monthly List of East European Accessions, L. C., Vol. 3, No. 5, May 1954, Uncl.

SALAPA, P.

Key tasks of managing materials in industrial building in 1955.  
(To be contd.) p. 296. Vol. 10, no. 11. Nov. 1955. MATERIAŁY BUDOWLANE.  
Warszawa.

Source: East European Accessions List (EEAL), LC, Vol. 5, No. 3, March 1956.

SZCZECIN, 1.

SAJAKA, P. Key tasks in the field of renewing materials in the industry  
in 1955. (Conclusion) p. 332.

Vol. 16, No. 12, Dec. 1955

MATERIALY PRZEMYSŁOWE

POLSKIE

Warszawa, Poland

See: East European Accession, Vol. 5, No. 5, May 1956

CHRAST, Bohumil, MUDr; SALAQUARDA, Fratisek, MUDr.

Spinal type of nervous disorders in dissecting aortic aneurysm.  
Vnitr.lek., Brno 1 no.8:583-590 Aug '55.

1. Z neurologické kliniky MU v Brne, prednosta prof. MUDr Karel  
Popek. 2. Z pathologicko-anatomickeho ustavu MU v Brne, prednosta  
prof. MUDr V. Neumann. Brno. Skolini, c. 3 Nervova klinika

(AORTIC ANEURYSM  
dissecting, with disord. of spinal nerve)  
(NERVES, SPINAL, diseases  
disord. in dissecting aortic aneurysm)

SALARIU, I.

TECHNOLOGY

Periodical: REVISTA INDUSTRIEI ALIMENTARE. PRODUSE VEGETALE. No. 5, 1958.

SALARIU, I. Mechanization in general: small mechanization in particular. p. 19.

Monthly List of East European Accession (EEAI) LC, Vol. 8, no. 3  
March 1959 Unclass.

SALARIU, I.

Combined production of steam and electric power in the dairy industry. p. 15.

REVISTA INDUSTRIEI ALIMENTARE. PRODUSE ANIMALE. (Ministerul Industriei  
Bunurilor de Consum) Bucuresti, Romania. Vol. 6, no. 11, 1958.

Monthly list of East European Accessions (EEAI) LC, no. 8, Aug. 1959.  
*Vol 8*

Uncl.

SALARIU, I.

Present stage of pneumatic transportation. I. (To be contd.) p. 1.

REVISTA INDUSTRIEI ALIMENTARE. PRODUSE VEGETALE. (Ministerul Industriei  
Bunurilor de Consum si Sindicatul Muncitorilor din Industria Bunurilor de  
Consum) Bucuresti, Rumania. No..10, 1958.

Vol. 8

Monthly list of East European Accessions (EEAI) LC, no. 8, Aug. 1959.

Uncl.

Salariu, L.

Present stage of pneumatic transportation. II. (Conclusion) p.3.

REVISTA INDUSTRIEI ALIMENTARE. PRODUSE VEGETALE. (Ministerul  
Industriei Bunurilor de Consum si Sindicatul Muncitorilor din  
Industria Bunurilor de Consum) Bucuresti. No. 11, 1958.

LOLJ  
Monthly list of East European Accessions (EEAI) LC, No. 8, Aug. 1959

Uncl.

~~DATA NO. 1.~~

USSR/ Physics - Nuclear physics

Card 1/1 Pub. 22 - 16/63

Authors : Dzhelepov, V.P.; Golovin, B.M.; and Salarov, V.I.

Title : Elastic dispersion of neutrons by neutrons at the energy of 300 mev

Periodical : Dok. AN SSSR 99/6, 943-946, Dec 21, 1954

Abstract : Experiments with the dispersion of neutrons by neutrons of 300 mev energy are described. Due to the small effectiveness of neutron beams, generated by an accelerator and the difficulties in detecting fast neutrons, a special method of conducting the experiments was worked out. The special method is described together with the equipment used. The method enables one determine the cross-section of the  $\sigma_{nn}$  dispersion reaction and the total nuclear cross-section.  $\sigma_t$  ( $n-n$ ). Eleven references; 8-USSR (1950-1954). Diagram; table.

Institution: .....

Presented by: .....

SALASEK, R

Distr: 40% / 40%

Physical methods for the concentration of uranium ores.  
Josef Kortus and Radomil Salásek. *Jaderná energetika*, 5, 46-60 (1959).—To utilize ores more efficiently, and to use even poor ores economically, the following phys. methods of sepn. can be used: 1. Automatic radiometric classification, in which ore pieces bigger than 4-cm. diam. are accepted or rejected by GM counters. 2. Gravitational classification, using water or heavy suspensions (e.g., of finely dispersed metals or arsenopyrite or blast furnace dust) of ore ground to 1-40 mm. 3. Flotation, for even finer ore, which seps. the sulfides (to which U minerals cling) from carbonates, making possible more economical extn. with acids. As flotation agents are suggested fatty acids, higher amines, iso-octyl phosphates, hexametaphosphate, and residues from the sulfonation of oils. 4. Selective grinding in ball mills, with or without water. Examples of actual production processes are given. H. Newcombe

3  
2

"APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001446820009-7

SHTEYN, R.L., inzh.; SALASHENKO, V.V., inzh.

Automation of a mazut pumping system. Energetik 11 no.10:  
24-25 O '63. (MIRA 16:11)

APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001446820009-7"

L 02505-67 FSS-2/EMT(1)

ACC NR: AP6016801 (A) SOURCE CODE: UR/0018/66/000/001/0039/0042

AUTHOR: Salashin, G. (Lieutenant colonel)

ORG: none

TITLE: The mortar platoon in defense

SOURCE: Voyennyy vestnik, no. 1, 1966, 39-42

TOPIC TAGS: military tactic, military training, GROUND FORCE TACTIC

ABSTRACT: On the defense, the mortar platoon is generally placed directly under the orders of the battalion commander or is designated for the support of one of the companies. In actions in hidden and extremely rugged terrain, it may be given directly to one of the companies. The beginning of an enemy attack is usually observed when his tanks and infantry emerge from cover. In order for the mortar shells of the first volley to fall accurately on the advancing enemy, the sector of barrage fire must be selected at a distance of from 200 to 300 meters. This distance is usually covered by the enemy in a period of from 1.5 to 2 minutes. This is also approximately the time needed by the mortar squad to open fire, including the signal to the commander and his orders to the mortar platoon. Speed is therefore of the essence.

Card 1/2

L 02505-67

ACC NR: AP6016801

The principle is illustrated in the article by a simulated problem,  
including a topographical map. Orig. art. has: 1 figure.

SUB CODE: 15/ SUBM DATE: none

Card 2/2 *[Signature]*

SALASHNYY, Ya.Ya.[Salashnyi, IA.IA.]

For the daily overfulfillment of shift norms. Mekh. sil'. hosp. 9  
no. 8:23-24 Ag '58. (MIRA 11:8)

1. Starshiy traktorist kolgospu im. XV z'izdu Vsesoyuznoi Komunistichnoi  
Partii (bil'shovikiv), Kotelevs'kogo rayonu, Poltav's'koj oblasti.  
(Tractors)

SAIASIN, K. (g.Kiyev)

Beauty enters life....Okhr. truda i sots. strakh. 5 no.8:16 Ag '62.  
(MIRA 15:7)  
(Industrial hygiene)

SALASIN, K. I.

Chainaia sela Rakitino [Tearoom of the village Rakitino]. (Iz opyta raboty  
chainoi Rakitnianskogo raipotrestsoiuza Kievskoi oblasti). Moskva,  
TSentrosoiuz, 1952. 24 p.

SO: Monthly List of Russian Accessions, Vol.7 No. 2 May 1954.

KORCHINSKIY, A.Y. [Korchyns'kyi, A.I.]; SALASIN, K.I.; DEREVETS', S.,  
red.; LAGUTIN, I. [Lahutin, I.], tekhn. red.

[Sugar industry of the Ukraine] TSukrova promyslovist'  
Ukrainy. Kyiv, Derzh. vyd-vo tekhn. lit-ry, URSR, 1960. 1 v.  
(MIRA 15:2)

(Ukraine—Sugar industry)

SALASINSKA, Maria

Statistics on burns treated at the clinical ward of the  
Surgical Institute of Mother and Child in Warsaw. Pediat.  
polska 31 no.7:775-783 July 56.

1. Dyrektor Instytutu: prof. dr. med. Fr. Groer, Kierownik  
Kliniki: doc. dr. med. W. Poradowska, Warszawa, Kasprzaka 17,  
I M i Dz.

(BURNS, in infant and child,  
hosp. statist. (Pol))

S/185/62/007/005/012/013  
D407/D301

AUTHORS: Dotsenko, B.B., and Salasyuk, V.M.  
TITLE: On the two-nucleon problem with a non-local potential  
PERIODICAL: Ukrayins'kyj fizichnyj zhurnal, v. 7, no. 5, 1962,  
563 - 565  
TEXT: The non-local internucleonic potential

$$\langle p/V/p' \rangle = - b_1 g(p)g(p') + b_2 v(p)v(p'), \quad (2)$$

proposed by M.M. Bogolyubov, is considered. This potential is of Yamaguchi type and leads to saturation; its first term corresponds to attraction, and the second - to repulsion. It is a short-range potential, which is of particular importance with respect to the second term, which represents the contribution of the core. The above potential is more convenient than Bruckner's or Gartenhaus's. From Schrödinger's equation for two nucleons with non-local potential, one obtains (after calculations) the wave function for the potential (2). This wave function is very similar to Hulthén's wave function.

Card 1/2

S/185/62/007/005/012/015

On the two-nucleon problem with a ... D407/D301

The parameter  $\lambda_1$ , entering the expression for the wave function, is determined from scattering formulas. Thereby one obtains very simple expressions for the parameters of the theory of effective radius ( $-1/a$ ,  $r_o$ ,  $r_d$ , and the form factor  $P$ ). By using experimental values of  $1/a$  and  $r_o$ , it is possible to obtain  $\lambda_1$ ,  $\lambda_2$  and  $\mu$ . A rough estimate yields the following values:  $\lambda_1 = 1.44 \text{ fm}^{-3}$ ,  $\lambda_2 = 242 \text{ fm}^{-3}$  and  $\mu = 2.1 \text{ fm}^{-1}$ . Hence, it follows that  $\lambda_1$  is of the same order of magnitude as  $\lambda$  in Y. Yamaguchi (Ref. 6: Phys. Rev., 95, 1628, 1954), whereas  $\lambda_2$  is much larger; with large distances, however, it is possible to neglect the contribution of the particle with  $\lambda_2$ . Potential (2) can be also used in the solution of the three-nucleon problem. There are 7 references: 1 Soviet-bloc and 6 non-Soviet-bloc (including 1 translation).

ASSOCIATION: Instytut fizyki AN URSR (Institute of Physics of the AS UkrSSR) Kyyiv

SUBMITTED: January 8, 1962

Card 2/2

S/045/62/026/008/026/028  
B104/B102

AUTHORS: Dotsenko, B. B., and Salasyuk, V. M.

TITLE: Determination of parameters for the repulsion potential generated by nucleon cores in nucleon-nucleon interaction

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 8, 1962, 1097-1101

TEXT: Nuclear theory has to consider not only the long-range forces of attraction originating in the pion shells of nucleons but also the short-range forces of repulsion originating in the nucleon cores. The concept of the nucleon cores being hard spheres involves the difficulty that the radii of these spheres cannot be determined accurately ( $0.35 \text{ fm} \leq r_c \leq 0.6 \text{ fm}$ ;  $f = 10^{-15} \text{ cm}$ ). In the three-nucleon problem, the binding energy of nucleons is positive. It is suggested to represent the potential of repulsive nucleon cores not by the hard sphere model but by a smooth function which drops quickly and becomes zero in infinity. The Schrödinger equation is studied with the nonlocal, intranuclear potential

Card 1/2

S/048/62/026/008/026/028

B104/B102

Determination of parameters ...

 $\langle r|v|r'\rangle = -a_1 u(r)u(r') + a_2 f(r)f(r')$  suggested by N. N. Bogolyubov.

The wave function

$$\Psi(r) = N \sqrt{\frac{\pi}{2}} \left[ \left( \gamma_1 \frac{e^{-ar} - e^{-\mu r}}{r} \right) - \left( \gamma_2 \frac{e^{-ar} - e^{-vr}}{r} \right) \right], \quad (8)$$

$$\gamma_1 = \frac{\lambda_1 m}{\mu^2 - a^2}, \quad \gamma_2 = \frac{\lambda_1 l - 1}{v^2 - a^2}, \quad (\gamma_2 \ll \gamma_1)$$

of this potential is very similar to Hulthen's function.

ASSOCIATION: Institut fiziki Akademii nauk SSSR (Institute of Physics  
of the Academy of Sciences UkrSSR)

Card 2/2

DOTSENKO, B.B.; SALASYUK, V.M.

On the problem of two nucleons with non-local potentials. Ukr.  
fiz.zhur. 7 no.5:563-565 My '62. (MIRA 16:1)

1. Institut fiziki AN UkrSSR, Kiyev.  
(Nucleons)

L 33618-65 EWT(m) Feb DIAAP

ACCESSION NR: AP5005968

S/0048/65/029/002/0339/0343

13  
12  
B

AUTHOR: Dotsenko, B.B.; Salasyuk, V.M.

TITLE: Calculation of elastic scattering and radiative processes in a neutron-proton system with nonlocal interaction<sup>1/2</sup>/Report, 14th Annual Conference on Nuclear Spectroscopy held in Tbilisi, 14-22 Feb 1964

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.29, no.2, 1965, 339-343

TOPIC TAGS: nucleon, nucleon scattering, nucleon interaction, deuteron reaction

ABSTRACT: The authors very briefly review the literature relating to nonlocal nucleon interactions and the repulsive nucleon core. With the use of a separable nonlocal potential of the Yamaguchi-Wheeler type, which they have previously discussed (Izv.AN SSSR,Ser.fiz.26,1097,1962), the authors calculate (with neglect of tensor forces) the low energy (up to 15 MeV) proton-neutron scattering cross section and the deuteron photodisintegration cross section for  $\gamma$  ray energies up to 50 MeV. From comparison of the calculated cross sections with experimental data in the literature, the authors conclude that the nonlocal potential is in satisfactory agreement with experiment and that the repulsive core exerts a small but definite

Card 1/2

L 33618-65

ACCESSION NR: AP5005968

influence. "The authors thank V.Likhvaro for assistance in computation of the considered quantities with the aid of the "Ural" electronic computer." Orig.art.has: 20 formulas and 3 tables.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im.T.G.Shevchenko (Kiev State University)

SUBMITTED: 00

ENCL: 00

SUB CODE: NP

NR REF Sov: 001

OTHER: 009

Card 2/2

SALAT, F.; STASTNY, V.

An apparatus for measurement of spring elasticity. Jemna mech  
opt 5 no.7:208-209 JJ '60.

l. Meopta, n.p., Praha.

SALAT, JAN

Chemical Abst.  
Vol. 48 No. 3  
Feb. 10, 1954  
Mineralogical and Geological Chemistry

13  
Historical account of Soviet mineralogy and geochemistry.  
Bohuslav Cambel and Jan Salat (eds., Brumovice, No-  
vember). Geol. Sbornik 3, 6-11 (1952).—Portrait section included  
of M. V. Lomonosov, V. M. Severgin, N. I. Koksharov,  
P. V. Ternovskiy, A. V. Verigin, B. S. Fedorov, V. V.  
Doluchakov, V. I. Vernadskii, A. B. Tersman, and S. S.  
Smirnov.

Michael Fleischer

EH

9-16-54

SALAT, J.

✓ Petrography of the Paleogene conglomerate of Mar-  
gecany. Ján Šalát (Tech. Hochschule, Košice, Czech.).  
*Geol. Sborník* (Bratislava) 5, 203-21(1954)(German sum-  
mary).—The conglomerate contains abundant granite and  
diorite, and a little dunite and gabbro-amphibolite. Chem.  
analyses of 2 rocks are given. Michael Fleischer

"APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001446820009-7

SALÁT, JAN

Petrography and petrochemistry of the eruptive rocks of  
the Hodruša-Výhne region. [An Salát (Tech. Hochschule,  
Košice, Czech.). *Gen. Prac. (Vitenskva)* No. 39, 50-09  
(1954) (German summary).—A petrographic study of gran-  
diorites, diorites, dacites, and rhyolites, with modes, Niggli-  
nos., and chem. analyses of 5 rocks. Michael Fleischer]

PC  
MJ

APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001446820009-7"

SALÁT, JÁN

The petrography of the volcanic rocks of the Předov-Tokay ~~EF~~  
Mountains and the neighboring region. Ján Šalát (Tech.  
Hochschule Kladice, Czech.), Geol. Sborník, 49-50 (1955)  
(German summary).—Petrographic data, with chem.  
analyses of 5 rocks, on rhyolites, dacites, and andesites.

Michael Fleischer

SALAT, J.

Report on the 10th Anniversary Congress of the Czechoslovak Society of Mineralogy and Geology of the Czechoslovak Academy of Sciences held in Kosice from September 8-11, 1956. p. 163.  
(Geologicky Sbornik, Vol. 8, no. 1, 1957. Bratislava, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no 10, October 1957. Uncl.

Country	: Czechoslovakia	D
Category	: Geochemistry, Géochimie, Hydrochemistry	
Abs. Jour.	: Ref Zhur - Khim, No 7, 1959	22869
Author	: Salat, J.	
Institut.		
Title	Petrochemistry of Vulcanites of Kresovsko-Tokajské Mountain Area	
Orig. Pub.	Geol. prace, SAV, 1957, No 4f, 328-352	

Abstract : Brief interpretation of 34 chemical analyses (numerical data not given) with variational composition diagrams. The following rocks are considered: riodacites, riplites, andesites, latites, etc., appertaining to 10 types of magma. The author attempts to correlate the contents of individual macroelements with one another. -- G. Vorob'yev.

Carri: 1/1

SALAT, J.

"Petrochemistry of the volcanic rocks of the Presov-Tokaj Mountains."

p. 328. (Chesky Lid., Vol 10, No. 3, 1958, Prague, Czechoslovakia)

GEOGRAPHY & GEOLOGY

Monthly Index of East European Accessions (EEAI) LC, Vol 7, No. 12, Dec 58

SALAT, Jan, prof., dr.

Problems of effusive rock classification. Sbor VST  
Kosice 2: 133-138 '62.

1. Laboratorium pre vyskum nerastnych surovin pri  
banickej fakulte, Vysoka skola technicka, Kosice.

SALAT, Jan, RNDr.

Volcanic association of the Carpathian Mountains. Sbor VST  
Kosice no. 2:75-88 '63.

1. Research Laboratory of Mineral Raw Materials of the Faculty  
of Mining, Higher School of Technology, Kosice.

SALAT, J.

Vulcanites of eastern Slovakia, a new raw material for the light building material production. Sbor VST Kosice no.1:159-169 '63.

1. Research Laboratory of Mineral Raw Materials of the Faculty of Mining of the Higher School of Technology, Kosice. Submitted May 15, 1962.

ROZLOZNIK, Ladislav, doc. inz.; SALAT, Jan, prof. dr.

Stratigraphic and tectonic position of banatites on Stiavnicky ostrov.  
Sbor VST Kosice no. 2:103-110 '63.

I. Chair of Geology and Mineralogy, Higher School of Technology,  
Kosice (for Rozloznik). 2. Research Laboratory of Mineral Raw  
Materials of the Faculty of Mining, Higher School of Technology,  
Kosice (for Salat).

SALAT, J.; SRNKA, R.

Minute tectonics of the Kosice-Bankov magnesite deposit.  
Sbor VST Kosice 1:137-147 '64.

1. Research Laboratory of Mineral Raw Materials of the Chair of  
Geology and Mineralogy of the Higher School of Technology, Kosice.  
Submitted April 24, 1963.

SALAT, T.

"Amounts of Certain Convergent Series." p. 203, (MATHEMATICO-FIZIKALNY CASOPIS,  
Vol. 4, No. 4, 1954, Bratislava, Czechoslovakia)

SO: Monthly List of East European Accessions, (EAD), 1C, Vol. 4  
No. 5, May 1955, Uncl.

SALAT, T.

Notes on Riemann's theorem of divergent series. P. 94.  
MATEMATICKO-FYZIKALNY CASOPIS. (Slovenska akademia vied.)  
Vol. 5, no. 2, 1955.

SOURCE: East European Accessions List, (EEAL) Library of Congress Vol. 5.  
No. 8, August 1956.

Salát, T. Über einen Satz von Dini. Acta Fac. Nat. Univ. Comenian. Math. 2 (1957), 67-70. (Slovak. Russian and German summaries)

Ein bekannter Satz über die Reihen mit positiven Gliedern von Dini sagt: Es sei  $\sum_{n=1}^{\infty} C_n$  eine konvergente Reihe mit positiven Gliedern,  $r_k = \sum_{n=1}^{\infty} C_{n+k}$  ( $k=1, 2, \dots$ ), und  $r_0 = \sum_{n=1}^{\infty} C_n$ . Dann ist die Reihe  $\sum_{n=1}^{\infty} (C_n/r_{n-1})^\alpha$  für  $\alpha < 1$  konvergent und für  $\alpha \geq 1$  divergent.

In dieser Arbeit studiert man "die Schnelligkeit" der Divergenz von  $\sum_{n=1}^{\infty} (C_n/r_{n-1})$  und das Hauptergebnis der Arbeit ist der Satz:

Es sei  $l = \sum_{n=1}^{\infty} C_n = r_0$  und  $r_k = \sum_{n=1}^{\infty} C_{n+k}$  ( $k=1, 2, \dots$ ). Es sei  $C_n/r_{n-1} \rightarrow 0$ . Dann gilt:  $\sum_{k=1}^{\infty} (C_k/r_{k-1}) \sim \log r_{n-1}$ . (Dabei  $f(x) \sim g(x)$  bedeutet wie gewöhnlich:  $\lim_{x \rightarrow \infty} (f(x)/g(x)) = 1$ ).

Eine einfache Folgerung dieses Satzes ist der Beweis der berühmten Beziehung:  $1 + \frac{1}{2} + \frac{1}{3} + \dots + 1/n \sim \log n$ .

Zusammenfassung des Autors

2  
1-FW

On Some Characteristics of Series With Positive Terms

✓ Salát, T. Über einige Eigenschaften der Reihen mit positiven Gliedern. Acta Fac. Nat. Univ. Comenian. Math. 2 (1957), 71-76. (Slovak, Russian and German summaries)

Es sei

$$(1) \quad \sum_{n=1}^{\infty} a_n = a_1 + a_2 + a_3 + \cdots + a_n + \cdots$$

eine konvergente Reihe mit positiven Gliedern. Im ersten Teil dieser Arbeit studiert man das Maß  $\mu(W)$  der Menge  $W$  aller derjenigen Zahlen  $w$ , welche die Form  $w = \sum_{n=1}^{\infty} \epsilon_n a_n$  ( $\epsilon_n = +1$  oder  $\epsilon_n = -1$ ) besitzen. Das Hauptergebnis dieses Teiles der Arbeit ist der Satz:

a) Es sei für  $k = 1, 2, 3, \dots$  in der Reihe (1) die Bedingung  $a_k > R_k$  erfüllt. (Dabei bedeutet  $R_k$  den Rest nach den  $k$ -ten Glied in (1).) Dann gilt:  $\mu(W) = \lim_{n \rightarrow \infty} 2^{n+1} \cdot R_n$ .

b) Es sei für  $k = 1, 2, 3, \dots$  in der Reihe (1) die Bedingung  $a_k \leq R_k$  erfüllt. Dann gilt:  $\mu(W) = 2 \sum_{n=1}^{\infty} a_n$ .

Im zweiten Teil der Arbeit studiert man eine Frage, welche in Zusammenhang mit divergenten Reihen steht. Der folgende Satz ist bewiesen: Es sei

2  
1-FIN

## On Some Characteristics of Series With Positive Terms

Salát, T.

(2)  $\{\varepsilon_n\}_{n=1}^{\infty} = \varepsilon_1, \varepsilon_2, \varepsilon_3, \dots, \varepsilon_n, \dots$

eine Folge mit Gliedern  $\varepsilon_n = +1$  oder  $\varepsilon_n = -1$ . Es sei  $\sum_{n=1}^{\infty} a_n = +\infty$ ,  $a_n > 0$ ,  $a_n \rightarrow 0$ . Behauptung: Es existiert eine Menge der Folgen (2), welche die Mächtigkeit des Kontinuums hat, daß für jede Folge  $\{\varepsilon_n\}_{n=1}^{\infty}$  aus dieser Menge  $\sum_{n=1}^{\infty} \varepsilon_n a_n = +\infty$  gilt.

Ein ähnlicher Satz auch für  $-\infty$  gilt. Diese Sätze sind eine Ergänzung der früheren Ergebnissen des Verfassers.

Zusammenfassung des Autors

2  
1-FW

SALAT, T.

5186:

*Salát, Tibor. Zu einer Eigenschaft der Irrationalzahlen.  
Mat.-Fyz. Časopis. Slovensk. Akad. Vied 7 (1957), 128-  
137. (Slovak. Russian and German summaries)*

Two players alternately choose positive real numbers

*a<sub>1</sub>, a<sub>2</sub>, a<sub>3</sub>, ... and a<sub>3</sub>, a<sub>4</sub>, ..., in such a way that for every  
n, a<sub>n+1</sub> < a<sub>n</sub>. It is shown that either player can force the  
following outcome:  $\prod_{i=1}^{\infty} (1+a_i)$  converges to an irrational  
number. This is in analogy with a result due to A. Turowicz [Ann. Polon. Math. 2 (1955), 103-105; MR 17, 466]  
concerning  $\sum_{i=1}^{\infty} a_i$ .*

*W. J. LeVeque (Göttingen)*

SALAT

2

F/W:

4723:  
Salát, Tibor. Absolutely convergent series, Mat.-Fyz.  
Časopis. Slovensk. Akad. Vied 7 (1957), 139–142. (Slo-  
vak. Russian summary)

Generalizing a result of J. Jakubík [same Časopis 5  
(1955), 133–136; MR 17, 728] the author shows that the  
set  $W$  of elements  $w = \sum c_i a_i$  (where  $c_i \in C_i$ ;  $i=1, 2, \dots$ )  
is perfect (and compact) under the following conditions:  
The  $a_i$  are fixed elements taken from a Banach space  $X$ ;  
the  $C_i$  are non-empty sets of complex numbers with the  
following properties: (1) All  $C_i$  are compact; (2)  $\sum K_i \|a_i\|$   
 $<\infty$ , where  $K_i = \sup_{z \in C_i} |z|$ ; (3) an infinite number of sets  
 $C_i$  contain more than one element. Proof: The usual

diagonalization process shows that  $W$  is compact. Because  
of (3) (and (2)) no point in  $W$  is isolated.  $W$  is, of course,  
not empty.

K. Zeller (Tübingen)

SALAT, T.

"Certain spaces of series with Bair's metrices."

p. 193 (Matematicko-Fyzikalny Casopis) Vol. 7, no. 4, 1957.  
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,  
April 1958

SALAT, T.

"Absolute convergent series and dyadic systems."

MATEMATICKO-FYZIKALNY CASOPIS, Bratislava, Czechoslovakia, Vol. 9, no. 1, 1959

Monthly List of EAST EUROPEAN ACCESSIONS INDEX (EEAI), LC, Vol. 8, No. 7,  
July, 1959

Unclassified

Salat, T.

On an application of continuous fractions in the theory of the infinite series.  
p. 317.

CASOPIS PRO PESTOVANI MATEMATIKY, Praha, Czechoslovakia. Vol. 84, no. 3, Aug. 1959.

Monthly List of East European Accessions, (EEAI) LC, Vol. 8, no. 10, 1959.-Oct.  
Uncl.

"APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001446820009-7

SALAT, Tibor (Bratislava)

The Cantor's series of real numbers and the Hausdorff's quantity.  
Mat kut kozl MTA 6 no.1/2:15-41 '61.

(Cantor, Georg) (Hausdorff, Felix) (Series)

APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001446820009-7"

SHALAT, Tibor [Salat, Tibor] (Bratislava, Smeralova 2)

On the theory of Cantor's expansion of real numbers.  
Mat fyz cas SAV 12 no.2:85-96 '62.

1. Katedra matematickej analyzy, Prirodovedecka fakulta  
Univerzity Komenskeho, Bratislava.

SALAT, Tibor

On distance sets of linear discontinuities. Part 2. Cas pro pes mat  
87 no.4:489-491 0 '62.

1. Komenskeho universita. Bratislava, Smeralova 2.

SALAT, T.

Remarks on the criteria for irrationality of real numbers.  
Acta r nat Univ Com 7 no.12:649-662 '63.

1. Katedra matematiky, Univerzita Komenskeho, Bratislava,  
Smeralova 2.

"APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001446820009-7

SALAT, Tibor (Bratislava)

On perfect numbers. Pokroky mat.fyz. astr. 9 no.1:1-13 '64.

APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001446820009-7"

L 21859-65 / EVT(d) IJP(c)

ACCESSION NR: AP5004138

Z/0045/64/000/003/0217/0233

AUTHOR: Legen, A. (Legen', A.) (Bratislava); Salat, T. (Salat, T.) (Bratislava)  $\beta$

TITLE: Certain applications of the method of categories in the theory of spaces  
of sequences  $\beta$  16

SOURCE: Matematicko-fyzikalny casopis, no. 3, 1964, 217-233

TOPIC TAGS: sequence, mathematic matrix

Abstract:

Theorem 1.1. Let  $(X, \epsilon)$  be a linear metric space and let  $(s(X), \epsilon')$  be the space of all sequences of points in  $X$ , where

$$\epsilon'(x, y) = \sum_{i=1}^{\infty} \frac{1}{2^i} \frac{\epsilon(\xi_i, \eta_i)}{1 + \epsilon(\xi_i, \eta_i)}.$$

Let  $a = \{\alpha_i\}_1^\infty$  be a sequence of numbers in a field  $T$  and assume that only finitely many  $\alpha_i$  are equal to zero. If by  $s'(X)$  we denote the set of all  $x = \{\xi_i\}_1^\infty$ ,  $x \in s(X)$  such that  $\sum_i \alpha_i \xi_i$  converges in  $(X, \epsilon)$ , then  $s'(X)$  is a set of the first category in  $(s(X), \epsilon')$ .

Theorem 1.2. Let  $X$  be a Banach [with norm  $\|x\| = \epsilon(x, 0)$ ] over a field  $T$ .

Card 1A

L 21859-65

ACCESSION NR: AP5004138

and let  $(s(X), \xi')$  have the same meaning as before. Moreover, let  $A = (a_{nm})$  be an infinite lower triangular matrix of complex (real) numbers satisfying the following conditions:

$$(a) \lim_{n \rightarrow \infty} a_{nm} = 0, m = 1, 2, \dots;$$

$$(b) \lim_{n \rightarrow \infty} \sum_{m=1}^n a_{nm} = \|A\|_1 + 0.$$

By  $s_1(X)$  we denote the set of all  $x = \{\xi_i\}_{i=1}^\infty \in s(X)$  that are summable by the matrix A. Then  $s_1(X)$  is a set of the first category in  $(s(X), \xi')$ .

Theorem 2.1. Let  $a = \{a_{ij}\}_{i,j=1}^\infty$  be a sequence of real numbers, and assume that only finitely many  $a_{ij}$  can be equal to zero. Then, for all  $x = \{\xi_i\}_{i=1}^\infty \in s$  with the exception of points in sets of the first category (in  $s$ ), we have

$$\liminf_{n \rightarrow \infty} \sum_{i=1}^n a_{ij} \xi_i = -\infty; \quad \limsup_{n \rightarrow \infty} \sum_{i=1}^n a_{ij} \xi_i = +\infty. \quad (1)$$

Theorem 2.2. Let  $A = (a_{nm})$  be an infinite matrix such that for each  $n=1, 2, \dots$  there exists an  $m_n$  such that  $a_{nm} \neq 0$  and  $a_{nm}=0$  for all  $m > m_n$ , and assume that  $\limsup_{n \rightarrow \infty} m_n = +\infty$ . Notation:

$$s'_1 = \sigma' [x = \{\xi_i\}_{i=1}^\infty \in s; \limsup_{n \rightarrow \infty} \tau_n(x) = +\infty, \liminf_{n \rightarrow \infty} \tau_n(x) = -\infty].$$

Card 2/4

L 21859-65

ACCESSION NR: AP5004138

Then the set  $s'_2$  is a set of the second category in the space  $s$ .

Theorem 3.1. Let  $a = \{a_i\}_1^\infty$  be a sequence of real numbers and assume that  $a \notin l(p')$ , where  $l(p')$  is defined as usual and  $p'$  is a real number such that  $1/p+1/p'=1$ . Then, for all  $x = \{\xi_i\}_{i=1}^\infty \in l(p)$ , with the exception of points in sets of the first category, we have:

$$\liminf_{n \rightarrow \infty} \sum_{i=1}^n a_i \xi_i = -\infty, \quad \limsup_{n \rightarrow \infty} \sum_{i=1}^n a_i \xi_i = +\infty. \quad (3)$$

It is a consequence of the following theorem that the "majority" of sequences  $x = \{\xi_i\}_{i=1}^\infty \in l(p)$  converge to zero very slowly.

Theorem 3.2. Let  $\{p_n\}_{n=1}^\infty$  be a sequence of positive real numbers and  $\limsup p_n = +\infty$ . Then, for all  $x \in l(p)$ , with the exception of points in sets of the first category, we have

$$\liminf_{n \rightarrow \infty} p_n \xi_n = -\infty, \quad \limsup_{n \rightarrow \infty} p_n \xi_n = +\infty. \quad (4)$$

Theorem 4.1. Let  $a = \{a_i\}_1^\infty$  be a sequence of real numbers,  $\limsup |a_i| = +\infty$ ,

Card 3/4

L 21859-65  
ACCESSION NR: AP5004138

and let  $\mathbb{L}$ , as usual, be the set of all sequences of real numbers  $x = \{\xi_i\}_1^\infty$  such that the series  $\sum_{i=1}^{\infty} |\xi_i|$  converges. Then for all  $x = \{\xi_i\}_1^\infty \in \mathbb{L}$ , with the exception of points in sets of the first category.

$$\liminf_{n \rightarrow \infty} \sum_{i=1}^n \alpha_i \xi_i = -\infty, \quad \limsup_{n \rightarrow \infty} \sum_{i=1}^n \alpha_i \xi_i = +\infty$$

Orig. art. has 28 formulas.

ASSOCIATION: Katedra matematickej analyzy Prirodovedeckej fakulty University Komenskeho, Bratislava (Department of Mathematical Analysis of Natural Science Faculty at Comenius University)

SUBMITTED: 26Jan63

ENCL: 00

SUB CODE: MA

NO REF SOV: 002

OTHER: 011

JPRS

Card 4/4

SALAT, Tibor (Budapest) (Bratislava)

Stability in the positivity of Steklov integrals of nonnegative  
functions. Rev. math. Rum. 9 no.63/64-561-562

"APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001446820009-7

SALAVA, T., inz.

Further remarks on the Orthophase loudspeaker. Sdel tech  
12 no.1:29-30 Ja'64.

APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001446820009-7"

SJAT, Tibor

A metric property of the Cantor expansion of real numbers, and  
the criteria of irrationality. Chekhosl mat zhurnal 14 no. 2:  
254-266. '64.

L. J.A. Comenius University, Bratislava, Smraková 2.

KOSTYRKO, Pavel; SHALAT, Tibor [Salat, Tibor]

On functions whose graphs are closed sets. Cas pro pest mat 89 no.  
4:426-432 0 '64.

1. Comenius University, Bratislava, Smeralova 2. Submitted August  
7, 1963.

SALATA, Aladar

Gypsy children; a great problem. Cesk. pediat. 13 no.3:267-271 5 Apr 58.

1. OUNZ Svidnik, riaditel Karol Duratny.

(INFANT MORTALITY

in gypsy inf., relation of environment (Cz))

(ENVIRONMENT

relation to morbidity & mortal. of gypsy child. (Cz))

(PEDIATRIC DISEASES

in gypsy child., relation of environment (Cz))

"APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001446820009-7

SALATA, A. T.

"The Effect of Onion Phytonicides on the Cistodes Hymenolepis nana and Hymenolepis fraterna", Med. Paraz. i Paraz. Bolez., Vol. 17, No. 2, pp 135-37, 1948.

APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001446820009-7"

USSR / Human and Animal Physiology. Digestion, Intestine.

Abs Jour : Ref Zhur - Biol., No 15, 1958, No. 70301

Author : Salata, A. T.

Inst : Not given

Title : The Influence of the Intracavitory Liquid of Ascarids  
on the Process of Absorption of Glucose from the Intestine

Orig Pub : In the collection: Nekotoryye vopr. morfol., fiziol. i  
patol. organov pishchevareniya, Moscow, Medgiz, 1956,  
142-146

Abstract : In dogs, two or three pieces of the large intestine  
measuring 20 cm each and situated one right after the  
other, were isolated and determinations were made of the  
content of sugar in the arterial and venous blood before  
and after the injection into the lumen of one of the  
segments of 20 ml glucose (I) solution or of solution I  
along with the intracavitory liquid of ascarids (IIA;10:1).

Card 1/2

94

SALATA, A.T.

Reaction of the body to the products of excretion of the Ascarids.  
Med.paraz.i paraz.bol. 26 no.1:74-77 Ja-P '57. (MLRA 10:6)

1. Iz kafedry biologii Dnepropetrovskogo meditsinskogo instituta.  
(ASCARIS, metab.  
eff. of excretions on human system)

SALATA, A. T., Doc Bio Sci, "inter  
PARASITE AND ~~THE~~ HOST IN ASCARIASIS. DNEPROPETROVSK, 1960.  
(ALL-UNION INST <sup>of</sup> HELMINTHOLOGY IM K. I. SKRYABIN). (KL, 2-61,  
203).

-62-

TAMMY, M.F. [Nemayn, N.F.]; SAMATA, Y.A.

Device for the spinning of the multifilament fiber  
U4-300-3 weft winding machine. No. 1, Inventor's  
prot. no. 2342-43 Ap-Je'61

SALATA, P.V., dotsent

Localized placement of semiliquid mixed organic-mineral fertilizers.  
Mekh. sil'. hosp. 12 no. 3:15-17 Mr '61. (MIRA 14:4)  
(Fertilizer spreaders)